

IN THE CLAIMS

For the convenience of the Examiner, all pending claims of the present Application are shown below whether or not an amendment has been made.

Please amend the claims as follows.

1. (Currently amended) A system for verifying spectral compatibility of a communication system that utilizes at least one digital subscriber line protocol, comprising:

a plurality of digital subscriber line access multiplexers; and

a communications channel coupling the plurality of digital subscriber line access multiplexers, each digital subscriber line access multiplexer operable to transmit and receive at least one training message over the communications channel, the training message ~~comprising information related to a training of a digital subscriber line modem by a carrier~~ indicating that a carrier has at least received a request to train a digital subscriber line modem and the training message comprising:

a company identifier identifying the carrier that has at least received the request to train the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem.

2. (Original) The system of Claim 1, wherein the communications channel comprises a 10/100 base-T Ethernet connection.

3. (Original) The system of Claim 1, wherein each digital subscriber line access multiplexer comprises a 10/100 base-T Ethernet port.

4. (Canceled)

5. (Canceled)

6. (Original) The system of Claim 1, wherein each digital subscriber line access multiplexer is operable to transmit a distress message over the communications channel, the distress message operable to indicate that the digital subscriber line modem violates at least one compliance guideline.

7. (Original) The system of Claim 6, wherein the distress message comprises:

a company identifier identifying the carrier that trained the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem.

8. (Currently amended) A digital subscriber line access multiplexer comprising:

a multiplexer operable to receive signals from a plurality of digital subscriber line connections and to aggregate the signals for transmission over a high-speed backbone line;

a controller operable to receive a ~~first spectral management training~~ message, the training spectral management message indicating that a carrier has at least received a request to train a digital subscriber line modem comprising information related to a training of a digital subscriber line modem over one of the subscriber lines and the training message comprising:

a company identifier identifying the carrier that has at least received the request to train the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem; and

an interface coupled to the controller and operable to receive the spectral management message over a spectral management channel.

9. (Original) The digital subscriber line access multiplexer of Claim 8, wherein:

the controller is also operable to generate a second spectral management message; and

the interface is also operable to transmit the second spectral management message over the spectral management channel.

10. (Canceled)

11. (Canceled)

12. (Original) The digital subscriber line access multiplexer of Claim 8, wherein the controller is operable to receive a distress message, the distress message operable to indicate that the digital subscriber line modem violates at least one compliance guideline.

13. (Original) The digital subscriber line access multiplexer of Claim 12, wherein the distress message comprises:

a company identifier identifying a carrier that trained the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem.

14. (Original) The digital subscriber line access multiplexer of Claim 8, wherein the controller is further operable to generate a distress message using a previously-received training message.

15. (Original) The digital subscriber line access multiplexer of Claim 8, wherein the interface comprises a 10/100 base-T Ethernet port.

16. (Currently amended) A method for verifying spectral compatibility of a communication system that utilizes at least one digital subscriber line protocol, comprising:

coupling a digital subscriber line access multiplexer to a spectral management channel; and

transmitting a training spectral management message over the spectral management channel, the training spectral management message indicating that a carrier has at least received a request to train a digital subscriber line modem comprising information related to a training of a digital subscriber line modem by a carrier and the training message comprising:

a company identifier identifying the carrier that has at least received the request to train the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem.

17. (Canceled)

18. (Canceled)

19. (Currently amended) The method of Claim 16 ~~Claim 17~~, further comprising training the digital subscriber line modem.

20. (Original) The method of Claim 16, wherein the spectral management message comprises a distress message, the distress message operable to indicate that the digital subscriber line modem violates at least one compliance guideline.

21. (Original) The method of Claim 20, wherein the distress message comprises:

a company identifier identifying the carrier that trained the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem.

22. (Original) The method of Claim 20, further comprising identifying the carrier that trained the digital subscriber line modem using a previously-received training message.

23. (Currently amended) A method for verifying spectral compatibility of a communication system that utilizes at least one digital subscriber line protocol, comprising:

coupling a digital subscriber line access multiplexer to a spectral management channel; and

receiving a training spectral management message over the spectral management channel, the training spectral management message indicating that a carrier has at least received a request to train a digital subscriber line modem comprising information related to a training of a digital subscriber line modem by a carrier and the training message comprising:

a company identifier identifying the carrier that has at least received the request to train the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem.

24. (Original) The method of Claim 23, wherein the spectral management message comprises a distress message, the distress message operable to indicate that the digital subscriber line modem violates at least one compliance guideline.

25. (Original) The method of Claim 24, wherein the distress message comprises:

a company identifier identifying the carrier that trained the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem.

26. (Original) The method of Claim 24, further comprising retraining the digital subscriber line modem in response to receiving the distress message.

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27. (Canceled)

28. (Canceled)

29. (Currently amended) A system for verifying spectral compatibility of a communication system that utilizes at least one digital subscriber line protocol, comprising:

a computer readable medium; and

software encoded on the computer readable medium, the software operable when executed to transmit and receive a training spectral—management message over a spectral management channel, the training spectral—management message indicating that a carrier has at least received a request to train a digital subscriber line modem comprising information related to a training of a digital subscriber line modem by a carrier and the training message comprising:

a company identifier identifying the carrier that has at least received the request to train the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem.

30. (Canceled)

31. (Canceled)

32. (Previously presented) The system of Claim 29, wherein the spectral management message comprises a distress message, the distress message operable to indicate that the digital subscriber line modem violates at least one compliance guideline.

33. (Original) The system of Claim 32, wherein the distress message comprises:

a company identifier identifying the carrier that trained the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem.

34. (Original) The system of Claim 32, wherein the software is operable to identify the carrier that trained the digital subscriber line modem using a previously-received training message.

35. (Currently amended) A system for verifying spectral compatibility of a communication system that utilizes at least one digital subscriber line protocol, comprising:

means for receiving signals from a plurality of digital subscriber line connections and aggregating the signals for transmission over a high-speed backbone line;

means for generating and receiving at least one training spectral management message, the training spectral management message indicating that a carrier has at least received a request to train a digital subscriber line modem comprising information related to a training of a digital subscriber line modem over one of the subscriber lines and the training message comprising:

a company identifier identifying the carrier that has at least received the request to train the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem; and

means for coupling the processing means to a spectral management channel.

36. (Original) The system of Claim 35, wherein the message comprises a distress message, the distress message operable to indicate that the digital subscriber line modem violates at least one compliance guideline.

37. (Original) The system of Claim 36, wherein the distress message comprises:

a company identifier identifying the carrier that trained the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem.

38. (Canceled)

39. (Canceled)

40. (New) A system for verifying spectral compatibility of a communication system that utilizes at least one digital subscriber line protocol, comprising:

1 a plurality of digital subscriber line access multiplexers; and

2 a communications channel coupling the plurality of digital subscriber line access multiplexers, each digital subscriber line access multiplexer operable to transmit a distress message over the communications channel, the distress message indicating that a digital subscriber line modem violates at least one compliance guideline and the distress message comprising:

3 a company identifier identifying a carrier that trained the digital subscriber line modem; and

4 a modem identifier identifying the digital subscriber line modem.

41. (New) The system of Claim 40, wherein the communications channel comprises a 10/100 base-T Ethernet connection.

42. (New) The system of Claim 40, wherein each digital subscriber line access multiplexer comprises a 10/100 base-T Ethernet port.

43. (New) The system of Claim 40, wherein each digital subscriber line access multiplexer is further operable to transmit a training message over the communications channel, the training message indicating that the carrier has at least received a request to train the digital subscriber line modem.

44. (New) A digital subscriber line access multiplexer comprising:

6 a multiplexer operable to receive signals from a plurality of digital subscriber line connections and to aggregate the signals for transmission over a high-speed backbone line;

12 a controller operable to receive a distress message, the distress message indicating that a digital subscriber line modem violates at least one compliance guideline and the distress message comprising:

13 a company identifier identifying a carrier that trained the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem; and

an interface coupled to the controller and operable to receive the distress message over a spectral management channel.

45. (New) The digital subscriber line access multiplexer of Claim 44, wherein:

the controller is also operable to generate a second spectral management message; and

the interface is also operable to transmit the second spectral management message over the spectral management channel.

46. (New) The digital subscriber line access multiplexer of Claim 44, wherein the controller is operable to receive a training message, the training message indicating that a carrier has at least received a request to train the digital subscriber line modem.

47. (New) The digital subscriber line access multiplexer of Claim 44, wherein the controller is further operable to generate the distress message using a previously-received training message.

48. (New) The digital subscriber line access multiplexer of Claim 44, wherein the interface comprises a 10/100 base-T Ethernet port.

49. (New) A digital subscriber line access multiplexer comprising:

8 a multiplexer operable to receive signals from a plurality of digital subscriber line connections and to aggregate the signals for transmission over a high-speed backbone line;

14 a controller operable to receive a spectral management message, the spectral management message comprising information related to a training of a digital subscriber line modem over one of the subscriber lines, and to generate a distress message using a previously-received training message; and

an interface coupled to the controller and operable to receive the spectral management message over a spectral management channel.

50. (New) The digital subscriber line access multiplexer of Claim 49, wherein:

the controller is also operable to generate a second spectral management message; and

the interface is also operable to transmit the second spectral management message over the spectral management channel.

51. (New) The digital subscriber line access multiplexer of Claim 49, wherein the controller is further operable to receive a training message, the training message indicating that a carrier has at least received a request to train the digital subscriber line modem.

52. (New) The digital subscriber line access multiplexer of Claim 49, wherein the controller is operable to receive a distress message, the distress message indicating that the digital subscriber line modem violates at least one compliance guideline.

53. (New) The digital subscriber line access multiplexer of Claim 49, wherein the interface comprises a 10/100 base-T Ethernet port.

54. (New) A method for verifying spectral compatibility of a communication system that utilizes at least one digital subscriber line protocol, comprising:

10 coupling a digital subscriber line access multiplexer to a spectral management channel; and

20 transmitting a distress message over the spectral management channel, the distress message indicating that a digital subscriber line modem violates at least one compliance guideline and the distress message comprising:

 a company identifier identifying a carrier that trained the digital subscriber line modem; and

21 a modem identifier identifying the digital subscriber line modem.

55. (New) The method of Claim 54, further comprising transmitting a training message, the training message indicating that the carrier has at least received a request to train the digital subscriber line modem.

56. (New) The method of Claim 55, further comprising training the digital subscriber line modem.

57. (New) The method of Claim 54, further comprising identifying the carrier that trained the digital subscriber line modem using a previously-received training message.

58. (New) A method for verifying spectral compatibility of a communication system that utilizes at least one digital subscriber line protocol, comprising:

16 coupling a digital subscriber line access multiplexer to a spectral management channel;

22 identifying a carrier that trained a digital subscriber line modem using a previously-received training message; and

27 transmitting a distress message over the spectral management channel, the distress message indicating that the digital subscriber line modem violates at least one compliance guideline.

59. (New) The method of Claim 16, wherein the second spectral management message comprises a training message, the training message indicating that the carrier has at least received a request to train the digital subscriber line modem.

60. (New) The method of Claim 17, further comprising training the digital subscriber line modem.

61. (New) The method of Claim 16, wherein the second spectral management message comprises a distress message, the distress message indicating that the digital subscriber line modem violates at least one compliance guideline.

62. (New) A method for verifying spectral compatibility of a communication system that utilizes at least one digital subscriber line protocol, comprising:

23 coupling a digital subscriber line access multiplexer to a spectral management channel; and

24 receiving a distress message over the spectral management channel, the distress message indicating that a digital subscriber line modem violates at least one compliance guideline and the distress message comprising:

25 a company identifier identifying a carrier that trained the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem.

63. (New) The method of Claim 62, further comprising receiving a training message, the training message indicating that the carrier has at least received a request to train the digital subscriber line modem and the training message comprising.

64. (New) The method of Claim 62, further comprising retraining the digital subscriber line modem in response to receiving the distress message.

65. (New) A system for verifying spectral compatibility of a communication system that utilizes at least one digital subscriber line protocol, comprising:

a computer readable medium; and

29 software encoded on the computer readable medium, the software operable when executed to transmit and receive a distress message over a spectral management channel, the
32 distress message indicating that a digital subscriber line modem violates at least one compliance guideline and the distress message comprising:

33 a company identifier identifying a carrier that trained the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem.

66. (New) The system of Claim 65, wherein the software is further operable to transmit a training message, the training message indicating that the carrier has at least received a request to train the digital subscriber line modem.

67. (New) The system of Claim 66, wherein the software is further operable to identify the carrier that trained the digital subscriber line modem using a previously-received training message.

68. (New) A system for verifying spectral compatibility of a communication system that utilizes at least one digital subscriber line protocol, comprising:

a computer readable medium; and

29 software encoded on the computer readable medium, the
software operable when executed to transmit and receive a
32 distress message over a spectral management channel, the
distress message indicating that a digital subscriber line
modem violates at least one compliance guideline, and to
36 identify a carrier that trained the digital subscriber line
modem using a previously-received training message.

69. (New) The system of Claim 68, wherein the software is further operable to transmit a training message, the training message indicating that the carrier has at least received a request to train the digital subscriber line modem.

70. (New) The system of Claim 66, wherein the distress message comprises:

a company identifier identifying a carrier that trained the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem.

71. (New) A system for verifying spectral compatibility of a communication system that utilizes at least one digital subscriber line protocol, comprising:

35 means for receiving signals from a plurality of digital subscriber line connections and aggregating the signals for transmission over a high-speed backbone line;

36 means for generating and receiving a training message, the training message indicating that a carrier has at least received a request to train a digital subscriber line modem and the training message comprising:

39 a company identifier identifying the carrier that has at least received the request to train the digital subscriber line modem; and

a modem identifier identifying the digital subscriber line modem; and

means for coupling the processing means to a spectral management channel.

72. (New) The system of Claim 71, further comprising means for transmitting a distress message, the distress message indicating that the digital subscriber line modem violates at least one compliance guideline.